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Extent of Utilization and Level of Competence in 21st-Century Instructional Pedagogies Amidst the Pandemic: A Cultural Lens on Higher Education Educators

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Abstract

This study examined the extent of utilization and competence of higher education educators amidst the pandemic in a state university to address the low passing rate in the Board Licensure Examination for Professional Teachers (BLEPT) and improve overall teaching quality, recognizing that instructional effectiveness is vital for student achievement, especially in teacher education programs. Using a descriptive survey method, data were gathered from faculty respondents and analyzed through frequency counts, percentages, ranking, mean, and weighted mean. The findings revealed that teachers were highly utilizing and highly competent in applying various instructional pedagogies, demonstrating adaptability in shifting between traditional, interactive, and technology-driven approaches to meet diverse learning needs, while their high competence levels reflected mastery and confidence in employing these strategies, which are crucial for improving instructional delivery and student performance outcomes. To address identified gaps and constraints, a validated Enhancement Program was developed to strengthen teachers' pedagogical skills and provide continuous professional development opportunities, underscoring the importance of sustained training and support mechanisms to ensure educators remain effective, innovative, and responsive to evolving educational demands.

Keywords: instructional pedagogies, teacher competence, BLEPT, pandemic, higher education

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Introduction

The development of a nation is inseparable from the quality of its educational system, which is primarily determined by student performance and teacher effectiveness. Teacher quality, often shaped by personality traits, pedagogical skills, and sound professional judgment, directly impacts student learning outcomes and overall academic achievement. As Darling-Hammond (2017) emphasizes, highly competent teachers are catalysts in preparing learners to navigate the demands of the 21st century, particularly in fostering critical thinking, creativity, and problem-solving abilities. In this light, educational institutions are challenged to continuously improve instructional methods and strengthen teacher competencies to provide quality and meaningful learning experiences (Nuqui, Cuenca, & Marcelo, 2015).

Despite these aspirations, the Philippine education system faces persistent challenges affecting its quality. Factors such as limited government funding, inadequate teacher preparation, poor school management, outdated curricula, lack of resources, and ineffective teaching strategies contribute to low educational outcomes (Salandanan, 2015; Tan & Chua, 2021). These systemic barriers necessitate reforms and sustain professional development to enhance teacher capacity and ensure high-quality instruction at all levels. The Commission on Higher Education's (CHED) CMO No. 46, s. 2012, through the Philippine Teacher Education Framework, underscores outcomes-based and typology-based approaches as mechanisms to ensure quality assurance in higher education (CHED, 2012).

To address the growing complexity of learning needs, teachers employ diverse strategies that accommodate multiple intelligences and learning styles, encouraging collaboration, innovation, and active engagement (Bidabadi et al., 2016). The rise of active learning, whether face-to-face or online, has been supported by socio-cultural theories and reinforcement principles, highlighting the importance of interaction and contextualized learning (Bonwell & Eison, 1991). With the advent of the Fourth Industrial Revolution, higher education institutions are further tasked to produce graduates adaptable to rapidly changing job markets, making the integration of 21st-century pedagogies more urgent (Trilling & Fadel, 2009).

The COVID-19 pandemic further reshaped educational landscapes, accelerating the adoption of "*pandemic pedagogies*" and online learning modalities. While e-tech platforms provided innovative solutions, teachers and students encountered significant challenges, including digital literacy gaps, limited internet connectivity, and inequitable access to learning resources (Crawford et al., 2020). These disparities amplified the digital divide, marginalizing students from underprivileged backgrounds and contradicting the assumption of universal digital fluency (Gonzales

et al., 2021). For educators, adapting to digital platforms demanded technical proficiency and pedagogical creativity to sustain learner engagement in remote and blended settings.

While existing literature has documented the importance of teacher competence, pedagogical strategies, and the effects of pandemic-driven changes in education, there remains a gap in localized studies examining the extent of utilization and competence of higher education teachers in applying 21st-century instructional pedagogies in the Philippine context during the pandemic. This study seeks to fill that gap by assessing how teachers in a state university employ and demonstrate competence in various instructional strategies, to provide insights into professional development and institutional support programs to enhance teaching effectiveness and ultimately improve student learning outcomes.

Theoretical Framework

The rapidly changing socio-economic landscape and the challenges introduced by the Fourth Industrial Revolution demand a fundamental transformation in educational systems. Goodwin (2019) highlighted the urgency of rethinking teaching methodologies to align with the widespread integration of digital technologies, ensuring that education remains relevant and responsive in a constantly evolving world. In this regard, instructional approaches must continuously adapt to technological advancements as digital innovations reshape how individuals live, work, and learn globally. Similarly, Mohamed (2014) and Lazarov (2018) contend that pedagogical reforms grounded in 21st-century strategies equip schools and communities to address student engagement, academic performance, learning difficulties, and discipline, ultimately preparing learners for success in the modern workforce.

One of the central underpinnings of this study is Howard Gardner's Theory of Multiple Intelligences (MI), introduced in *Frames of Mind* (2000). Gardner's framework identifies nine distinct intelligences and emphasizes that learners possess varied strengths, such as kinesthetic abilities, which are best developed through hands-on experiences. Applied to the Technology and Livelihood Education (TLE) program, this theory highlights the need to recognize and nurture diverse learner capabilities, especially in developing livelihood skills. The findings of this study are expected to identify existing constraints, address challenges, and propose strategies for more effective teaching and learning in this context.

Another theoretical foundation is Vygotsky's concept of the Zone of Proximal Development (ZPD) and scaffolding practice. This theory posits that learners can

acquire new knowledge and skills more effectively when supported by guided instruction, before eventually achieving independent mastery. For TLE instruction, scaffolding provides a structured pathway that allows teachers to sequence lessons systematically and ensure that students develop competencies step by step, promoting skill retention and application.

Lastly, the Constructivist Learning Theory, advanced by Piaget and Vygotsky, underscores the role of active learning and innovative pedagogies in fostering deep understanding. Constructivism emphasizes that learners construct knowledge through interaction and experience, making student-centered approaches essential in 21st-century education. Educators can create learning environments that encourage exploration, collaboration, problem-solving, and critical thinking by integrating technology-driven instructional methods. Grounded in these theoretical perspectives, this study is designed to address a gap in existing literature, as no prior research has comprehensively examined the extent of utilization and competence of teachers in applying 21st-century instructional pedagogies within the context of TLE in Philippine higher education.

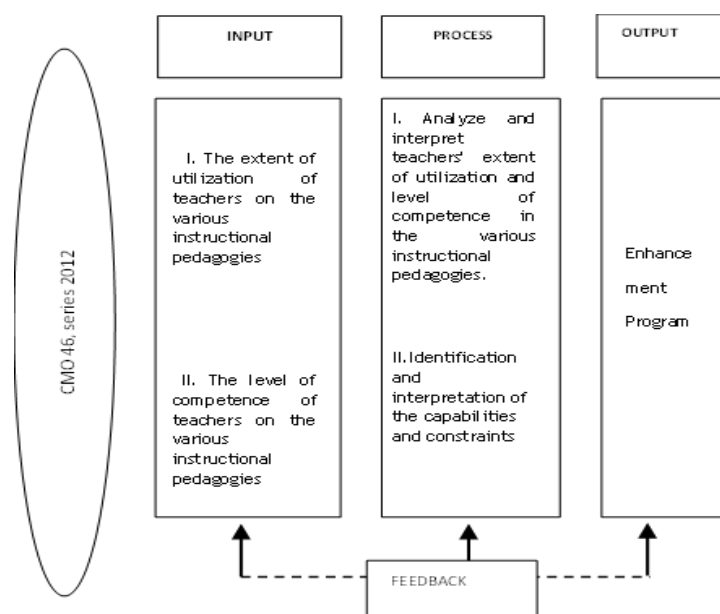


Figure 1. Paradigm of the Study

Figure 1 illustrates the conceptual paradigm of the study, which examines the extent of utilization and level of competence of higher education educators in implementing various 21st-century instructional pedagogies. The study follows a systematic process, assessing current pedagogical practices and teacher competencies. Based on the findings, a validated enhancement program was developed to address identified gaps and improve instructional effectiveness.

Research Methodology

This study utilized the descriptive-survey method of investigation that entails describing, recording, evaluating, and interpreting the existing conditions (Leary, 2010). The study focused on teachers' extent of utilization and level of competence in the various instructional pedagogies. The study was conducted at the College of Education of Don Mariano Marcos Memorial State University.

The population of this study consisted of 13 teachers in the Bachelor of Technology and Livelihood Education and Bachelor of Technical Vocational Teacher Education.

A questionnaire checklist was used to obtain the necessary data. The researcher personally administered the questionnaire to the students and instructors. The questionnaire was administered after proper coordination and approval of the concerned administrators. After the questionnaires are completed, they are retrieved by the researcher herself. The data gathered, collated, and tabulated were subjected to statistical analysis and interpretation using the appropriate tools.

Results and Findings of the Study

The extent of Utilization of Teachers on the Various Instructional Pedagogies

Student learning outcomes are influenced by the teacher's instructional preparation, teaching methods, and various learning activities. On the other hand, there is an assumption that students learn with different styles, speeds, levels of prior knowledge, and environments when the subject matter is given through various teaching strategies. Teachers utilize a variety of teaching approaches and techniques to support learning and accommodate students' particular learning styles and intelligences, according to Nuqui et al. (2015). The present study illustrated that a good teaching technique allows students to question their beliefs and pushes them to learn by placing them in a scenario where they perceive themselves as authors of answers as agents of change (Bidabadi et al., 2016).

In the result of the study, among the various teaching pedagogies, the most utilized is the demonstration, with an average of 4.43, which is very highly utilized, followed by reporting and brainstorming, with a mean of 4.42.

Table 1. Extent of Utilization of Teachers on the Various Instructional Pedagogies

Instructional Pedagogies	Mean	DE
1. Demonstration	4.43	VHU
2. Discussion	4.25	THU

3. Q and A Method	4.02	HU
4. Role Playing	3.37	MU
5. Film Viewing	4.37	THU
6. Field Trips	3.80	HU
7. Drills	4.13	HU
8. Short Stories	3.63	MU
9. Games	3.65	MU
10. Computer/Multimedia	4.35	THU
11. Resource Speaker	4.18	HU
12. Workshops Training	4.10	HU
13. Reporting	4.42	THU
14. Brainstorming	4.42	THU
15. Experimental	3.85	HU
16. Project	4.15	HU
17. Concept Method	4.18	HU
18. Inquiry Method	4.12	HU
19. Discovery Method	3.85	HU
20. Process Approach	3.77	MU
21. Problem Solving	4.10	HU
22. Reading	3.47	MU
23. Collecting Method	3.88	HU
24. Inductive Method	3.55	MU
25. Group Method	4.02	HU
26. Instructional Methods	4.12	HU
Overall Mean	4.01	HU

The demonstration was the most utilized teaching pedagogy since the TLE course is a skill-oriented subject that requires teachers to show a specific skill in a procedural method, and the student will follow. It aligns with the concept of Albarico (2014) on Technology and Livelihood Education as a curriculum that provides learners with knowledge, information, skills, processes, appropriate work values, and life skills.

However, role-playing is the least utilized teaching pedagogy, with a mean of 3.37. Role-playing as a teaching method requires getting all students to participate and be genuinely engaged. Teachers must then have a strong motivation to let all learners participate.

Level of Competence of Teachers in the Various Instructional Pedagogies

The study reveals that the level of competence of teachers on the various instructional pedagogies is highly competent based on the computed average weighted mean of 3.84. It implies that teachers can teach learners by applying different methods.

Table 2. Level of Competence of Teachers on the Various Instructional Pedagogies

Instructional Pedagogies	Mean	DE
1. Demonstration	4.37	VHU
2. Discussion	4.05	HU
3. Q and A Method	4.05	HU
4. Role Playing	3.40	HU
5. Film Viewing	4.22	THU
6. Field Trips	4.03	HU
7. Drills	4.05	HU
8. Short Stories	3.73	HU
9. Games	3.98	HU
10. Computer/Multimedia	4.12	HU
11. Resource Speaker	3.88	HU
12. Workshops Training	3.80	HU
13. Reporting	3.65	HU
14. Brainstorming	4.15	HU
15. Experimental	3.72	HU
17. Concept Method	3.85	HU
18. Inquiry Method	3.85	HU
19. Discovery Method	3.42	HU
20. Process Approach	3.67	HU
21. Problem Solving	3.83	HU
22. Reading	3.12	MU
23. Collecting Method	3.85	HU
24. Inductive Method	3.27	MU
25. Group Method	4.05	HU
26. Instructional Methods	3.82	HU
Mean	3.84	HU

Among the various teaching pedagogies, the teaching method the teachers are most competent with is the demonstration, with a computed mean of 4.37 and a very highly competent descriptive equivalent. It conforms with the result in the previous table that teachers highly utilized demonstrations; hence, since they frequently use demonstrations as a strategy, they are already competent in it.

Teachers should effectively deliver the learning competencies by acquiring mastery and competence in the applicable strategy. Successful and practical teaching that results in long-term learning, according to Isfahani et al. (2016), necessitates specific feelings and attitudes on the part of the teachers. Their attitudes and emotions have a significant impact on their conduct and teaching. Demonstration is considered one of the best strategies in teaching skill-oriented courses since it requires students to have hands-on experience that fosters a sense of responsibility. It is in line with Bidabadi et al. (2016), who claim that the best teaching encourages students to question their preconceptions and pushes them to learn by putting them in situations where

their existing knowledge does not work; they come to see themselves as authors of answers and change agents. That means the students must face problems that they think are important.

It can be seen in the table that reading has the lowest computed mean of 3.12, which is one of the methods that teachers are moderately competent with. Results of the study show there are strategies that teachers are moderately competent with and incompetent with, and training is needed for them to be highly competent.

Discussion

The study's findings reveal that teachers employed a wide range of instructional pedagogies, with an overall mean of 4.01, interpreted as highly utilized. It suggests that higher education educators value diversified teaching strategies to meet learners' different styles, abilities, and readiness levels. Among the methods, demonstration was the most highly utilized ($M = 4.43$, VHU), which is expected in skill-oriented courses like Technology and Livelihood Education (TLE), where procedural mastery and hands-on application are essential. It supports Albarico's (2014) claim that TLE requires practical and life skills best delivered through demonstration. It resonates with Bidabadi et al. (2016), who emphasize that effective teaching positions students as active learning agents. Other commonly used strategies include reporting, brainstorming, and film viewing, which encourage collaboration, critical thinking, and multimedia integration suited to 21st-century learners. In contrast, role-playing ($M = 3.37$, MU) and reading ($M = 3.47$, MU) were least utilized, likely due to challenges in engaging large groups and students' preference for more interactive and digital activities.

In terms of competence, teachers were also found to be highly capable overall, with a weighted mean of 3.84. Demonstration again ranked highest ($M = 4.37$, VHC), underscoring the link between frequent use and mastery. This finding affirms Isfahani et al. (2016), who argue that competence in teaching stems not only from knowledge and skill but also from confidence and positive attitudes. Teachers also showed high competence in film viewing, brainstorming, and computer/multimedia, indicating responsiveness to modern, interactive approaches. However, lower competence in reading ($M = 3.12$, MU), inductive method ($M = 3.27$, MU), and role-playing ($M = 3.40$, HU) reveal areas needing targeted professional development. These results highlight the importance of consistent practice in building mastery, while also stressing the need for training in underutilized strategies to strengthen holistic teaching practices. Overall, the study underscores that while teachers are adaptive and competent in modern and practical strategies, balancing them with traditional, inquiry-based, and

reflective approaches is necessary to equip learners with skills and critical thinking abilities fully.

Conclusion

The study concludes that higher education teachers effectively utilize a wide range of instructional pedagogies and demonstrate high competence in applying them. Demonstration emerged as the most frequently used and mastered strategy, reflecting its relevance in skill-based disciplines such as TLE, where procedural learning and hands-on practice are essential. Teachers also showed strong competence in modern and interactive approaches like film viewing, brainstorming, and computer/multimedia, which align with the demands of 21st-century learners. However, the limited use and moderate competence in strategies such as role-playing, reading, and the inductive method indicate areas for improvement, particularly in fostering reflective, inquiry-based, and participatory learning. These findings emphasize the need for continuous professional development to strengthen teachers' proficiency in underutilized methods while sustaining their competence in highly practiced ones. Ultimately, balancing traditional and innovative pedagogies is essential to equip learners with practical skills and critical thinking, creativity, and lifelong learning capabilities.

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